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11768 # 4.57 `sleep` — Suspend execution for an interval

11769 ## 4.57.1 Synopsis

11770 `sleep` *time*

11771 ## 4.57.2 Description

11772 The `sleep` utility shall suspend execution for at least the integral number of
11773 seconds specified by the *time* operand.

11774 ## 4.57.3 Options

11775 None.

11776 ## 4.57.4 Operands

11777 The following operands shall be supported by the implementation:

11778 *time* A nonnegative decimal integer specifying the number of seconds
11779 for which to suspend execution.

11780 ## 4.57.5 External Influences

11781 ### 4.57.5.1 Standard Input

11782 None.

11783 ### 4.57.5.2 Input Files

11784 None.

11785 ### 4.57.5.3 Environment Variables

11786 The following environment variables shall affect the execution of `sleep`:

11787 **LANG** This variable shall determine the locale to use for the
11788 locale categories when both **LC_ALL** and the correspond-
11789 ing environment variable (beginning with **LC_**) do not
11790 specify a locale. See 2.6.

11791 **LC_ALL** This variable shall determine the locale to be used to over-
11792 ride any values for locale categories specified by the set-
11793 tings of **LANG** or any environment variables beginning
11794 with **LC_**.

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LC_CTYPE This variable shall determine the locale for the interpretation of sequences of bytes of text data as characters (e.g., single- versus multibyte characters in arguments).

LC_MESSAGES This variable shall determine the language in which messages should be written.

4.57.5.4 Asynchronous Events

If the `sleep` utility receives a SIGALRM signal, one of the following actions shall be taken:

(1) Terminate normally with a zero exit status

(2) Effectively ignore the signal

(3) Provide the default behavior for signals described in 2.11.5.4. This could include terminating with a nonzero exit status.

The `sleep` utility shall take the standard action for all other signals; see 2.11.5.4.

4.57.6 External Effects

4.57.6.1 Standard Output

None.

4.57.6.2 Standard Error

Used only for diagnostic messages.

4.57.6.3 Output Files

None.

4.57.7 Extended Description

None.

4.57.8 Exit Status

The `sleep` utility shall exit with one of the following values:

0 The execution was successfully suspended for at least *time* seconds, or a SIGALRM signal was received (see 4.57.5.4).

>0 An error occurred.

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11822 ### 4.57.9 Consequences of Errors

11823 Default.

11824 ### 4.57.10 Rationale. *(This subclause is not a part of P1003.2)*

11825 **Examples, Usage**

11826 The exit status is allowed to be zero when `sleep` is interrupted by the SIGALRM
11827 signal, because most implementations of this utility rely on the arrival of that sig-
11828 nal to notify them that the requested finishing time has been successfully
11829 attained. Such implementations thus do not distinguish this situation from the
11830 successful completion case. Other implementations are allowed to catch the sig-
11831 nal and go back to sleep until the requested time expires or provide the normal
11832 signal termination procedures.

11833 **History of Decisions Made**

11834 As with all other utilities that take integral operands and do not specify
11835 subranges of allowed values, `sleep` is required by this standard to deal with *time*
11836 requests of up to 2 147 483 647 seconds. This may mean that some implementa-
11837 tions will have to make multiple calls to the underlying operating system's delay
11838 mechanism if its argument range is less than this.

11839 ## 4.58 `sort` — Sort, merge, or sequence check text files

11840 ### 4.58.1 Synopsis

11841 `sort [-m][-o` *output* `][-bdfinru][-t` *char* `][-k` *keydef* `] ... [`*file* `...]`

11842 `sort -c[-bdfinru][-t` *char* `][-k` *keydef* `] ... [`*file* `]`

11843 *Obsolescent Versions* :

11844 `sort [-mu][-o` *output* `][-bdfinr][-t` *char* `][+`*pos1* `[-`*pos2* `]] ... [`*file* `...]`

11845 `sort -c[-u][-bdfinr][-t` *char* `][+`*pos1* `[-`*pos2* `]] ... [`*file* `]`

11846 ### 4.58.2 Description

11847 The `sort` utility shall perform one of the following functions:

11848 (1) Sort lines of all the named files together and write the result to the
11849 specified output.

11850 (2) Merge lines of all the named (presorted) files together and write the
11851 result to the specified output.

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